

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-30 are pending in the application, with claims 1, 13, and 27 being the independent claims. Claims 2, 7-9, 14, and 28 are sought to be cancelled without prejudice to or disclaimer of the subject matter therein. New claims 31 and 32 are sought to be added. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections Under 35 U.S.C. § 101

The Examiner has rejected claims 27-30 under 35 U.S.C. § 101 because, according to the Examiner, independent claim 27 is “not limited to tangible embodiments.” The Examiner believes that the term “computer useable medium” as used in claim 27 includes intangible or non-functional media, such as signals, and thus is not limited to statutory subject matter. Applicant has amended claim 27 to accommodate the Examiner's rejection. In particular, claim 27 recites "A computer program product comprising a tangible computer useable storage medium having computer readable program code means embedded in said medium for causing a computer to manage a plurality of system components within a controlled environment." The claim no longer reads on signals. Applicants therefore respectfully request that the rejection be withdrawn.

Rejections Under 35 U.S.C. § 112

In the Office Action, the Examiner rejected claims 1-30 as allegedly being indefinite under 35 U.S.C. § 112, second paragraph. As set forth below, Applicants respectfully traverse these rejections and request reconsideration and allowance of the aforementioned claims. To the extent that the Examiner's indefiniteness concerns apply to more than one claim, Applicants address these concerns where appropriate by groups of similarly affected claims as follows:

A. Group 1: "a control object from said first set"

Claims 1, 4, 6, 8, 9, 13, 18 contain the foregoing element. According to the Examiner, it is unclear whether that element represents a single control object or multiple control objects from the first set of control objects. Applicants submit that the element is sufficiently clear to particularly point out and distinctly claim Applicants' invention.

B. Group 2: "a control object from said second set."

Claims 1, 2, 4, 6, 15, 18, and 29 contain the foregoing element. According to the Examiner, it is unclear whether that element represents a single control object or multiple control objects from the second set of control objects. Applicants submit that the element is sufficiently clear to particularly point out and distinctly claim Applicants' invention.

C. Group 3: "an affiliate system component" or "a system component"

Claims 2 and 13 contain one or more of the foregoing elements. According to the Examiner, it is unclear whether either of these elements represents a single (affiliate) system component or multiple (affiliate) system components or system components.

Applicants submit that the element is sufficiently clear to particularly point out and distinctly claim Applicants' invention.

D. Group 4: "a component type" or "a selected component type."

Claims 6, 20, and 30 contain one or more of the foregoing elements. According to the Examiner, it is unclear whether either element represents a single component type or multiple component types of the plurality of component types. Applicants submit that each of the elements is sufficiently clear to particularly point out and distinctly claim Applicants' invention.

E. Group 5: "a region" or "a selected region"

Claims 18 and 29 contain one or more of the foregoing elements. According to the Examiner, it is unclear whether either element represents a single region or multiple regions of a plurality of regions. Applicants submit that either element is sufficiently clear to particularly point out and distinctly claim Applicants' invention.

F. Group 6: "the system component"

Claims 18 and 20 contains the foregoing element. According to the Examiner, it is unclear whether either element refers to one or more system components within the controlled environment, the selected system component, or the one or more system components included in each region. Applicants submit that the element is sufficiently clear to particularly point out and distinctly claim Applicants' invention.

G. Group 7: "a selected system component" or "a system component"

Claims 1 and 27 contain one or more of the foregoing elements. According to the Examiner, it is unclear whether either element represents a single system component or multiple system components from the plurality of system components. Applicants

submit that either element is sufficiently clear to particularly point out and distinctly claim Applicants' invention.

G. Miscellaneous

1. Claim 2: The Examiner states that the element "the activated control object" could refer to the activation of a control object from the first set of control objects or the activation of a control object from the second set of control objects. Applicants submit that the proposed amendments to claims 1 and 2 as reflected above render the Examiner's indefiniteness concerns moot.

2. Claims 7-10: The Examiner states that there is insufficient antecedent basis for the element "the on-off state" Applicants submit that the proposed amendments to claims 7-10 and 31-32 as reflected above render the Examiner's indefiniteness concerns moot.

Rejections Under 35 U.S.C. § 102

Dresti et al.

The Examiner has rejected claims 1-5, 7-12, 13-19, 21-26 and 27-29 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0103088 to Dresti et al. ("Dresti"). For the reasons set forth below, Applicant respectfully traverses the Examiner's rejection.

Independent claims 1, 13, and 27 each relate to a novel graphic user interface ("GUI") for a portable controller that provides a clear, intuitive, and simple way of controlling multiple consumer electronic devices and multiple groups of device systems. The present invention incorporates a top-down control approach based on a hierarchical representation of the control environment (e.g., a user's house) with underlying interface

sublevels (e.g., corresponding to rooms in the house), and devices in each of the rooms. Under this “home-room-device” control structure, for example, the user may view all the rooms in a house containing controllable devices and to select a particular room in a house for purposes of controlling the consumer electronic device systems contained in that room.

According to the present invention, once the user selects a particular device to control (e.g., a TV), an appropriate GUI is presented that provides the necessary control options that would allow the user to control that selected device (e.g., channel select). The GUI also includes a novel feature that facilitates control of device systems comprising an output or “parent” device (e.g., a TV) having multiple input or “child” devices (e.g., DVD, VCR, satellite tuner, TiVo, etc.). In accordance with the present invention, the GUI for controlling the parent device also has a separate field that graphically shows the universe of child devices that are affiliated or connected to the parent device. This field is also found in each of the control screens for each of the child devices comprising that particular system. The user only needs to activate the icon in the field that represents the desired child device to access a GUI for controlling that device. Accordingly, when viewing the parent-device control screen or a child-device control screen, the user can see and select other child devices by scrolling up or down the field without having to switch from the currently displayed screen or having to navigate through other screens.

In particular, independent claim 1 is directed to a graphical user interface for managing a plurality of system components within a controlled environment, that includes:

a first set of control objects for selecting a system component within the controlled environment, wherein activation of a control object from said first set denotes said selected system component and populates the user interface with said control options, wherein each control option is associated with a sequence of commands that, when executed, sends instructions to control the operations or functions of said selected system component; and

a second set of control objects representing affiliate system components capable of providing an input to said selected system component, wherein activation of a control object from said second set populates the user interface with control options for an affiliate system component associated with the activated control object from the second set, wherein each control option for said affiliate system component is associated with a sequence of commands that, when executed, sends instructions to control the operations or functions of said affiliate system component.

Independent claim 13 is directed to a method of managing a plurality of system components within a controlled environment, that includes:

presenting, on a user interface, a first set of control objects, each object being associated with one or more system components within the controlled environment;

selecting a system component in response to receiving an activation signal associated with a control object from said first set;

populating said user interface with control options for the selected system component;

associating each control option with a sequence of executable commands that sends instructions to control the operations or functions of the selected system component; and

presenting, on said user interface, a second set of control objects representing affiliate system components capable of providing an input to the selected system component.

Independent claim 29 is directed to a computer program product comprising a computer useable medium having computer readable program code means embedded in

said medium for causing a computer to manage a plurality of system components within a controlled environment, that includes:

first computer readable program code means for presenting, on a user interface, a first set of control objects, each object being associated with one or more system components within the controlled environment;

second computer readable program code means for selecting a system component in response to receiving an activation signal associated with a control object from said first set;

third computer readable program code means for populating said user interface with control options for the selected system component;

fourth computer readable program code means for associating each control option with a sequence of executable commands that sends instructions to control the operations or functions of the selected system component; and

fifth computer readable program code means for presenting, on said user interface, a second set of control objects representing affiliate system components capable of providing an input to the selected system component.

In addition, the present invention also organizes devices by device type for ease of control. This affords the user with the ability to control devices of the same type (e.g., lights) using one master screen, rather than require the user to navigate through individual region control screens and enter the same command repeatedly for similar devices within each region.

In particular, independent claim 31 is directed to a graphical user interface for managing a plurality of system components within a controlled environment, that includes:

a set of control objects for selecting a type of system component within the controlled environment that operates in either an on or off state, wherein said set of control objects includes a switch object

associated with a global command that, when executed, sends instructions to alter the on-off state of one or more system components matching the selected system component type, wherein selection of a control object from said set of control objects denotes said selected system component type.

In concluding that the foregoing claims are not patentable under Section 102(e), the Examiner relies on the Dresti reference, which is directed to a remote control GUI for controlling consumer electronic devices. Specifically, Dresti discloses a “device wheel” GUI in which icons representing devices are displayed in a graphical wheel format. To select a device, the user rotates the wheel so that the icon representing the desired device appears at the top of the wheel. Dresti at para. [0142], lines 1-3; Figs. 11 and 14i. According to Dresti, activating the icon representing the desired consumer electronic device “would cause the remote control application to display a page of control functions for that device (for example, see FIG. 19a). Dresti at para. [0151], lines 12-15.

Dresti, however, does not disclose a GUI that has (1) a first set of control objects for controlling a consumer electronic device selected by the user, and (2) a second set of control objects on the same GUI representing other affiliated consumer electronic devices that are capable of providing input to the selected device. Indeed, none of the GUIs described in or contemplated by Dresti—including the device-wheel GUI for selecting a device (e.g., Figs 11 and 14i) and the GUI displaying control functions for that selected device (e.g., Figs. 19a and 19b)—contain a second set of control objects representing affiliated devices that can provide input to the selected device.

To the contrary, Dresti’s primary device-wheel GUI presents only one set of controllable devices that can be selected by the user. More to the point, Dresti’s GUI for controlling the selected device only displays control options for the selected device, and

does not display another set of devices that can provide input to the selected device.

Consequently, in order for a user to determine what other devices are connected to the selected device and to activate such affiliated devices, the user would have to physically exit out of the control GUI for the device currently in operation and navigate to another GUI that displays such other devices. Such “screen flipping” is one of the deficiencies in traditional control schemes that Applicants’ intended to obviate through the present invention.

Neither does Dresti disclose a GUI that organizes and controls devices by device type such that the user can control all of the devices of the same type as a collective group. In support of his rejection, the Examiner relies on the macro-based control discussed in Dresti, which allows a user to manually program a sequence of actions to be assigned to a single button such that the sequence can be repeated by a press of a single button. For example, a user could program a “watch DVD” macro by assigning a sequence of commands for operating a TV and a DVD player to a single button, thereby allowing the user to press one button to perform that particular activity.

The device-type control of the present invention, however, is not a macro functionality. Rather, according to the GUI of the present invention, controllable devices can be organized by device type (e.g., lighting or cameras) to allow the user to control all the devices of the same selected type, including those contained in a certain region or over the entire control environment. For example, by activating the GUI icon representing lighting, the user can turn all the lights in a house either on or off without having to control each light individually. Such device-type control is applicable to an

entire control environment (e.g., a house) or by region (e.g., rooms of a house). Dresti does not teach or suggest control of devices by device type.

In view of the foregoing, Applicants submit that Dresti does not render claims 1-5, 7-12, 13-19, 21-26, and 27-29 unpatentable under Section 102(e).

Hasha et al.

The Examiner has rejected claims 1-6, 13-15, 17-20, and 27-30 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,734,879 to Hasha et al. ("Hasha"). For the reasons set forth below, Applicant respectfully traverses the Examiner's rejection.

Like Dresti, Hasha is directed to a GUI for controlling consumer electronic devices. However, like Dresti, Hasha fails to teach or suggest the use of a GUI that provides a first set of control objects to control a selected consumer electronic device and a second set of control objects representing affiliated consumer electronic devices capable of providing input to the selected device. Accordingly, like Dresti, Hasha does not render claims 1-6, 13-15, 17-20 and 27-30 unpatentable under Section 102(e).

Conclusion

Because neither Dresti nor Hasha teach or suggest each and every feature of independent claims 1, 13 and 27, as explained above, these claims cannot be anticipated by either of those references. The claims that depend from independent claims 1, 13, and 27, are likewise not anticipated by either Dresti or Hasha for the same reasons as the independent claims from which they depend and further in view of their own respective features. Accordingly, Applicants respectfully request that the Examiner's rejection of claims 1, 3-6, 10-12, 13, 15-27, 29-32 under 35 U.S.C. § 102(a) be reconsidered and withdrawn.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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